

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-6 (Canceled).

7. (Original) An ultrasonic diagnostic apparatus, comprising:

an ultrasonic probe for transmitting ultrasound to a subject having been injected with a contrast agent, and receiving ultrasonic echo from the subject;

a driving signal generator for generating a driving signal for driving the ultrasonic probe;

a control unit for controlling the driving signal generator based on a predetermined scan sequence for plotting a time-varying concentration graph of the contrast agent;

a signal processor for applying a detection process and a logarithmic transformation process to the ultrasonic echo;

an image generator for generating an ultrasonic image based on an output of the signal processor;

an antilogarithmic transformation unit for applying an antilogarithmic transformation process to an output signal coming from at least either of the signal processor or the image generator; and

a processor for plotting a time-varying graph based on the output signal coming from the antilogarithmic transformation unit.

8. (Original) The ultrasonic diagnostic apparatus according to claim 7, wherein

the measurement processor derives a mean transit time of a blood flow based on the time-varying graph.

9. (Previously Presented) The ultrasonic diagnostic apparatus according to claim 7, wherein

the control unit controls the driving signal generator in such a manner that an initial scanning is performed after a lapse of time in which the contrast agent is fully filled in a target part of the subject, and

based on a result of the initial scanning, the measurement processor normalizes a value of the scanning performed after the initial scanning to plot the graph.

10. (Original) An ultrasonic diagnostic apparatus, comprising:

an ultrasonic probe for transmitting ultrasound to a subject having been injected with a contrast agent, and receiving ultrasonic echo from the subject;

a driving signal generator for generating a driving signal for driving the ultrasonic probe;

a control unit for controlling the driving signal generator based on a predetermined scan sequence for plotting a time-varying concentration graph of the contrast agent;

a signal generator for generating a first signal as a result of a detection process and a logarithmic transformation process applied with respect to the ultrasonic echo, and a second signal as a result of the detection process applied with respect to the ultrasonic echo;

an image generator for generating an ultrasonic image based on the first signal; and

a measurement processor for plotting the time-varying graph based on the second signal.

11. (Original) The ultrasonic diagnostic apparatus according to claim 10, wherein the measurement processor derives a mean transit time of a blood flow based on the time-varying graph.

12. (Previously Presented) The ultrasonic diagnostic apparatus according to claim 10, wherein

based on a result of the scanning performed for an initial time after a lapse of time in which the contrast agent is fully filled in a target part of the subject, the measurement processor normalizes a value of the scanning performed after the initial scanning to plot the graph.

13. (Original) An ultrasonic diagnostic apparatus, comprising:
an ultrasonic probe for transmitting ultrasound to a subject having been injected with a contrast agent, and receiving ultrasonic echo from the subject;

a driving signal generator for generating a driving signal for driving the ultrasonic probe;

a control unit for controlling the driving signal generator based on a predetermined scan sequence for deriving a time-varying concentration of the contrast agent;

an image generator for generating an ultrasonic image based on the ultrasonic echo;
and

a measurement processor for plotting a time-varying concentration graph of the contrast agent based on the ultrasonic echo, and for compensating a mean transit time of a blood flow derived from the time-varying graph depending on a measurement position depth.

14. (Previously Presented) The ultrasonic diagnostic apparatus according to claim 13, wherein

the control unit controls the driving signal generator in such a manner that an initial scanning is performed after a lapse of time in which the contrast agent is fully filled in a target part of the subject, and based on a result of the initial scanning, the measurement processor normalizes a value of the scanning performed after the initial scanning to plot the graph.

15. (Original) An ultrasonic diagnostic apparatus, comprising:

an ultrasonic probe for transmitting ultrasound to a subject having been injected with a contrast agent, and receiving ultrasonic echo from the subject;

a driving signal generator for generating a driving signal for driving the ultrasonic probe;

a control unit for controlling the driving signal generator based on a predetermined scan sequence for plotting a time-varying concentration graph of the contrast agent;

an image generator for generating an ultrasonic image based on the ultrasonic echo; and

a measurement processor for plotting the time-varying concentration graph of the contrast agent based on the ultrasonic echo, and for compensating the time-varying graph depending on a measurement position depth.

16. (Previously Presented) The ultrasonic diagnostic apparatus according to claim 15, wherein

the control unit controls the driving signal generator in such a manner that an initial scanning is performed after a lapse of time in which the contrast agent is fully filled in a

target part of the subject, and based on a result of the initial scanning, the measurement processor normalizes a value of the scanning performed after the initial scanning to plot the graph.

Claims 17-29 (Canceled).